

12-06-2004

10/517515

CA0300890

JT12 Rec'd PCT/PTO 1.0 DEC 2004

- 8 -

We Claim:

1. A vehicle door system comprising:
a door;
a pivot arm having a first end pivotally connected to a first end of the door,
and a second end pivotally connectable to the vehicle; and
a guide mounted on a second end of the door for engagement with a guide
track on the vehicle, the pivot arm and the guide cooperating to cause the door to pivot
and slide relative to the vehicle as the door moves between an open and a closed
position;
characterized in that the vehicle body includes a body panel disposed adjacent
the passenger doorway which includes a substantially horizontal recessed section that
is configured to receive the pivot arm therein and maintain it flush with the body panel
when the vehicle door is disposed in the door closed position.
2. The door system according to claim 1, including a first hinge pivotally
coupling the second end of the pivot arm to the vehicle body about a first pivot axis,
and a second hinge pivotally coupling the first end of the pivot arm to the vehicle door
about a second pivot axis, the first pivot axis comprising a substantially vertical axis
and being substantially parallel to the second pivot axis.
3. The door system according to claim 2, wherein the first hinge is disposed
proximate the recessed section.
4. The vehicle according to claim 2, wherein one of the hinges includes a latch
configured for arresting the vehicle door in one of the door closed position and the
door open position.

5. The vehicle according to claim 4, wherein the vehicle door includes a release handle having a released position and an actuated position, and the latch comprises a pawl coupled to the release handle, and a detent configured for receiving the pawl within for retaining the vehicle door in the arrested position when the release handle is disposed in the released position.

6. The vehicle according to claim 2, wherein the doorway includes said guide track disposed adjacent a lower portion thereof, and the vehicle door includes said guide arm received within the guide track for supporting the vehicle door.

7. The vehicle according to claim 6, wherein the doorway has a pair of opposite sides, the pivot arm is disposed adjacent one of the opposite sides, and the guide track comprises a substantially linear guide track extending between the opposite sides, the linear guide track including an arcuate end disposed adjacent the other of the opposite sides and extending inwardly into the vehicle interior.

8. A vehicle door for fitting to a vehicle body, the vehicle body including a vehicle interior and a passenger doorway exposing the vehicle interior, the vehicle door comprising:

- a vehicle door frame including an upper portion, a lower portion, and a pair of opposite sides extending between the upper and lower portions; and

- a pivot arm coupled to the door frame adjacent one of the opposite sides, the pivot arm including a pair of opposite ends, a first of the opposite ends including a first hinge for pivotally coupling the pivot arm to the vehicle body about a first pivot axis, the second end including a second hinge pivotally coupling the vehicle door frame to the support arm about a second pivot axis;

- characterized in that the vehicle body includes a body panel disposed adjacent the passenger doorway which includes a substantially horizontal recessed section that

- 10 -

is configured to receive the pivot arm therein and maintain it flush with the body panel when the vehicle door is disposed in the door closed position.

9. The vehicle door according to claim 8, wherein the first pivot axis is parallel to the second pivot axis.

10. The vehicle door according to claim 8, wherein the vehicle door frame includes a release handle operable between a released position and an actuated position, and one of the hinges includes a latch configured for arresting pivotal movement of the vehicle door, the latch comprising a pawl coupled to the release handle, and a detent configured for receiving the pawl within for retaining the vehicle door in the arrested position when the release handle is disposed in the released position.

11. The vehicle door according to claim 10, wherein the doorway includes a guide track, and the vehicle door includes a guide arm disposed adjacent the lower portion for guiding the vehicle door along the guide track.